#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022793 Address: 333 Burma Road **Date Inspected:** 23-Apr-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Mr. Sun Tian Liang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG Segment** 

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Ultrasonic Testing (UT) – NWIT Document No: 008908

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The members are identified as OBG Segment 13CW. The weld designations reviewed are as follows:

- 1. SEG3015C-008, 009, 012, 013
- 2. SEG3015E-008, 009, 012, 013
- 3. SEG3015G-008, 009, 012, 013
- 4. SEG3015J-008, 009, 012, 013
- 5. SEG3015L-008, 009, 012, 013

Visual Observation: During random Quality Assurance Visual review of welds located on segment 13CW, this Quality Assurance Inspector (QA) observed that uncompleted welding/concavity measuring approximately 15mm in lengths. The indication is clearly marked on the material near the weld. The weld is identified as SEG3015J-10. The panel point is identified as a PP123. This weld is a Fillet weld joining the Floor beam Flange to Deck Panel Diaphragm at Longitudinal Diaphragm Cope Hole. The Floor Beam Flange weld is identified as Non SPCM. For further information, please see the attached pictures

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

**OBG** Trail Assembly

This QA Inspector observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint SEG3015K-192 located on Floor Beam to Vertical Plate at panel point 122.5 of OBG Segment 13CW. ZPMC Welder is identified as 045213. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3015D-135 located on Floor Beam to Vertical Plate at panel point 121.5 of OBG Segment 13BW. ZPMC Welder is identified as 066422. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

SMAW welding of weld joint SEG3015F-233 located on Floor Beam to Vertical Plate at panel point 123.5 of OBG Segment 13BW. ZPMC Welder is identified as 067588. ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. The welding variables recorded by QC appeared to comply with the Applicable WPS-B-P-2213-Tc-U4b-FCM-1.

This QA inspector observed ZPMC personnel performed Magnetic particle Testing (MT) on Side Plate, Edge Plate and bottom plate hold back RS stiffeners at E7 and E8 cross beam side of OBG Segment 13BW.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



### **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

**Inspected By:** Kumar, Vibin Quality Assurance Inspector **Reviewed By:** Patel, Hiranch QA Reviewer